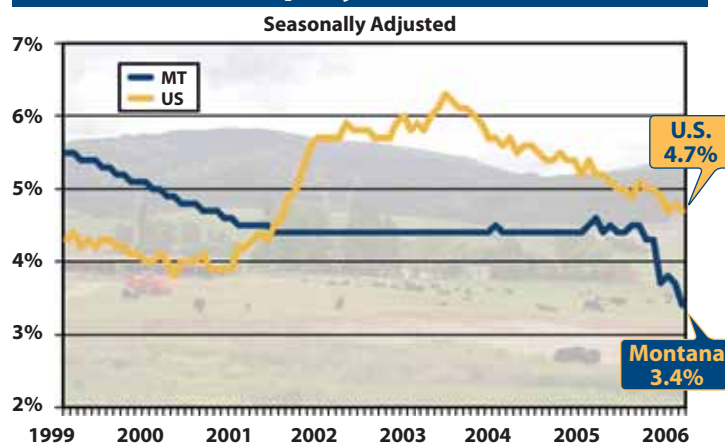


Montana Economy at a Glance

Robert C. Marvin, Editor

Unemployment Rate



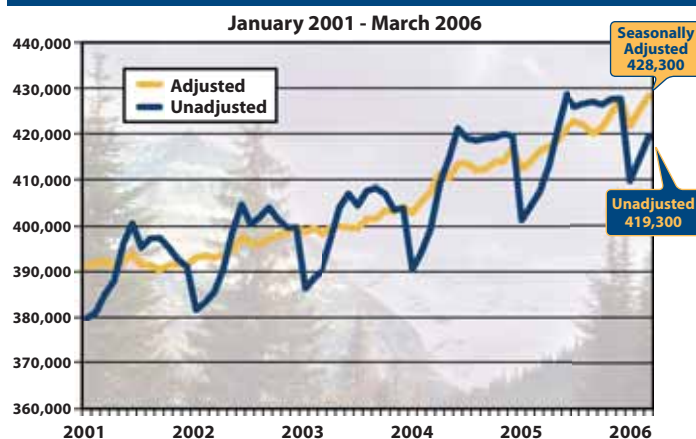
Montana saw a record low unemployment rate of 3.4% in March 2006. This 0.3% over-the-month decrease marks the lowest point in the rate's history. The U.S. rate also fell, dropping 0.1% to 4.7%.

COUNTY UNEMPLOYMENT RATES

Not Seasonally Adjusted

	March 2006	March 2005		March 2006	March 2005
UNITED STATES	4.7%	5.4%	McCone	3.9%	5.1%
MONTANA	3.4%	5.1%	Madison	4.1%	4.4%
Beaverhead	4.4%	4.6%	Meagher	4.7%	5.0%
Big Horn	8.5%	11.1%	Mineral	6.7%	7.6%
Blaine	4.7%	6.2%	Missoula	3.9%	4.6%
Broadwater	3.8%	4.9%	Musselshell	4.6%	6.7%
Carbon	3.6%	4.2%	Park	4.4%	5.2%
Carter	4.8%	4.3%	Petroleum	6.0%	7.2%
Cascade	4.2%	4.9%	Phillips	5.6%	5.7%
Chouteau	3.5%	4.4%	Pondera	5.0%	6.1%
Custer	4.3%	4.9%	Powder River	5.2%	5.0%
Daniels	3.5%	4.4%	Powell	6.5%	7.7%
Dawson	3.8%	4.7%	Prairie	6.8%	6.5%
Deer Lodge	6.1%	6.9%	Ravalli	5.0%	5.9%
Fallon	2.5%	3.5%	Richland	4.1%	5.1%
Fergus	5.4%	6.8%	Roosevelt	6.5%	7.6%
Flathead	5.0%	6.3%	Rosebud	6.4%	7.1%
Gallatin	2.8%	3.3%	Sanders	6.2%	8.1%
Garfield	5.1%	6.0%	Sheridan	4.2%	4.7%
Glacier	7.7%	9.7%	Silver Bow	4.6%	5.2%
Golden Valley	3.5%	6.4%	Stillwater	3.2%	3.8%
Granite	5.5%	7.3%	Sweet Grass	1.8%	2.6%
Hill	4.9%	5.6%	Teton	3.7%	4.8%
Jefferson	4.5%	4.7%	Toole	3.3%	4.0%
Judith Basin	3.8%	5.7%	Treasure	5.3%	6.0%
Lake	5.8%	6.6%	Valley	4.5%	5.5%
Lewis & Clark	3.9%	4.6%	Wheatland	4.0%	5.1%
Liberty	4.0%	6.4%	Wibaux	4.4%	4.3%
Lincoln	9.6%	11.7%	Yellowstone	3.4%	3.9%

Nonfarm Employment



Montana's seasonally-adjusted nonagricultural payroll employment gained 3,200 jobs (0.8%) over the month for March 2006. The largest increases were in Construction, which was up by 900 jobs (3.1%); Trade, Transportation, and Utilities, up by 800 jobs (0.9%); and Professional and Business Services, up by 600 jobs (1.7%).

EMPLOYMENT BY INDUSTRY

Industry Employment (in thousands)	March 2006	Feb. 2006	Net Change	Percent Change
Total Non-Agricultural	428.3	425.1	3.2	0.8%
Natural Resources & Mining	8.1	8.2	-0.1	-1.2%
Construction	29.8	28.9	0.9	3.1%
Manufacturing	19.3	19.3	0.0	0.0%
Trade, Transportation, Utilities	89.0	88.2	0.8	0.9%
Information*	7.7	7.7	0.0	0.0%
Financial Activities	21.6	21.6	0.0	0.0%
Professional & Business Services	35.3	34.7	0.6	1.7%
Education & Health Services*	57.8	57.5	0.3	0.5%
Leisure & Hospitality	56.2	55.9	0.3	0.5%
Other Services*	16.5	16.4	0.1	0.6%
Total Government	87.7	87.3	0.4	0.5%

*These series are not seasonally adjusted

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An Analysis of the Gender Wage Gap in the State Government Workforce

By Brad Eldredge, Ph.D. and Tyler Turner

For many years, both academics and the popular press have focused from time to time on the gap in average pay between male and female workers. At the same time, employers and governments have increasingly sought to enact legislation and internal policies designed to shrink this gap and encourage equal pay for equal work. Recently, the Interagency Committee for Change By Women (ICCW) asked the Research and Analysis Bureau to investigate differences in male and female pay within state government. This article provides a summary of the results.

Data for this study came from the Montana Department of Administration and included wage records for all employees in state government. Besides wages, the data set included other employee characteristics that might affect wages, such as job tenure, pay grade, pay plan, job title, race, marital status, gender, age, full or part time status, and union affiliation. The richness of the data allowed us to isolate the effects of gender on wages while controlling for the other variables listed in Table 1.

To isolate the effect of each individual variable on wages, a statistical technique called regression analysis was used. Regression analysis is powerful, in that it allows a researcher to mathematically hold constant all variables but one, in order to see what the effect of that one variable is on wages. Think of regression as a tool that permits us to compare two workers, Joe and Jane, who are identical in terms of all the control variables except for their gender. Any difference in Joe and Jane's salary results from either their gender or the fact that there is an important missing variable excluded from the data set.

One variable absent from the data set was educational attainment. While it is well known that educational attainment affects wages, and it would be preferable to include educational attainment in our model, we do not feel that the lack of this variable drastically affects the results. We draw this conclusion because occupational title, which we included

in the model, will in many cases correlate with educational attainment. For example, lawyers need a certain level of education to practice. While there is a risk that some individuals are under-employed given their educational background, we believe that most individuals will be employed in job titles that reflect their education.

We ran a regression analysis using 3,900 wage records. Because of data requirements, we excluded workers who held more than one job and included only those occupations with at least ten men and ten women. Economists, for example, are excluded because there are 9 men and only 1 woman with this job title in state government. We also exclude employees of the state's university system and elected officials.

Overall, the average female salary in state government was about \$6,900 less than the average male salary. This equates to the average woman making about 83% of the average man's salary. Most of this gap disappears after taking

into account the variables in Table 1. After controlling for these variables, the regression results showed that the remaining unexplained gap between male and female pay was \$1,010.

Referring back to the example of Joe and Jane, if Joe and Jane both had average values for the control variables in Table 1, then Jane would earn about 97% of what Joe earns. More specifically, the model estimates that if Joe and Jane both had the average state government tenure (10.4 years) worked in the same "average" occupation, belonged to the same union, and in all other respects were the same in terms of the control variables in table one, then Jane would make \$35,480 which is 97% of Joe's \$36,490 annual salary.

Table 1: Variables Used in the Regression Analysis

Dependent Variable:

- Wage

Control Variables:

- Gender
- Race
- Marital Status
- Job Title
- Pay Grade
- Pay Plan
- Tenure
- Union Affiliation
- Full Time or Part Time Status

Those interested in shrinking the gender pay gap should find it heartening that most of the gap does not appear to result from women earning less while doing the same job and having the same characteristics as men. The broader

question is why do women differ from men in terms of these other variables? Table 2 provides some summary statistics for some of the control variables. For example, men tend to have more tenure in state government than women. (11.3 years vs. 9.5 years). The analysis found that for each additional year of tenure, wage increased by an estimated \$517. Therefore, the 1.8 year difference in average tenure between men and women explains \$931 of the overall pay gap.

Table 2: Summary Statistics for Control Variables

Variables	Female	Male
Tenure	9.51	11.28
White	50%	50%
Non-White	52%	48%
Married	47%	53%
Single	55%	45%
Full-Time	48%	52%
Part-Time	60%	40%
Non-Union	50%	50%
MPEA	52%	48%
MEA	47%	53%
Other Union	56%	44%

Another key factor in the overall wage gap is the propensity of women to work part-time rather than full time. All else being equal, part-time workers make roughly \$8,263 dollars less than full-time workers. Table 2 shows that 60% of the state's part-time workers are women, even though the overall state workforce is 50% male and 50% female.

Another question is why do women tend to be more concentrated in certain lower-wage occupations while men are concentrated in higher-wage occupations? Examination of Table 3 reveals that even though the state employs nearly equal numbers of men and women, only 11% of the state's "Engineering Managers" are women while 88% of its "Administrative Clerks" are women. Only 35% of the state's program managers are women, and the average salary of female program managers is lower than male program managers, suggesting that the men may be more concentrated in upper management and the women in middle management. Overall, the differences in male and female occupational mix accounted for about \$3,413 of the difference in male and female pay, or about half of the overall wage gap.

It would be interesting to study whether the difference in male and female concentrations in the various occupations is due to hiring practices or larger social issues. If for example half of all applicants for managerial positions were women it would be difficult to defend the fact that only 35% of managers are currently women. On the other hand, if only 35% of applicants for management positions were women, then it would be difficult to make the case that hiring practices are discriminatory.

We hope that this article has contributed to the continued discussion on this important issue. As can be seen from this analysis, the gender wage gap is a complex issue resulting from many different factors. To fully understand the causes of the wage gap, additional research into the reasons behind the male-female differences in the control variables would be beneficial. There may be social and cultural issues as well as individual lifestyle choices contributing to the wage gap that extend beyond purely economic explanations.

Table 3: Male and Female Wages by Job Title

Job Code	Job Title	Female	Wage	Male	Wage
000032	Legislative - Prof	56%	52,644	44%	56,759
000101	Personal Staff/EO-Admin	35%	51,792	65%	67,622
111217	Operations Manager	27%	61,424	73%	64,506
111218	Operations Manager	30%	75,184	70%	78,172
111916	Program Manager	35%	51,830	65%	53,952
119417	Engineering Manager	12%	70,259	88%	70,799
119902	Social Community Svc Mgr	60%	48,317	40%	50,426
131413	Child Support Compliance Spc	88%	35,652	13%	33,861
131415	Compliance Specialist	53%	34,179	47%	35,081
131615	Employment Specialist	65%	32,160	35%	32,583
131756	Training Development Spc	33%	41,404	67%	40,338
131904	Administrative Specialist	78%	38,759	22%	40,270
131915	Administrative Specialist	73%	35,168	27%	34,214
131916	Administrative Specialist	55%	43,521	45%	44,230
132116	Accountant	78%	41,834	22%	41,152
132206	Tax Appraiser	45%	33,081	55%	35,710
151216	Computer Programmer	37%	45,370	63%	46,669
151516	Computer Systems Analyst	33%	45,021	67%	47,025
151716	Network Administrator	41%	42,774	59%	44,480
151816	Network Systems Analyst	30%	42,082	70%	45,356
173136	Designer	18%	47,476	82%	46,780
173213	Civil Engineering Technician	19%	24,038	81%	22,819
173215	Civil Engineering Technician	9%	39,779	91%	42,079
191236	Fish Wildlife Biologist	12%	39,457	88%	43,705
191315	Water Conservation Specialist	27%	35,724	73%	34,665
192416	Environmental Science Spc	35%	38,413	65%	40,250
192417	Environmental Science Spc	24%	44,424	76%	47,548
194952	Conservation Aide	27%	15,523	73%	17,196
211182	Rehabilitation Counselor	40%	29,651	60%	31,249
211184	Rehabilitation Counselor	67%	31,087	33%	30,417
211196	Rehabilitation Counselor	63%	35,270	37%	36,757
211204	Child Family Social Worker	81%	32,577	19%	34,595
211216	Child Family Social Worker	84%	36,154	16%	38,228
211226	Human Services Specialist	73%	38,252	27%	37,735
211816	Probation Parole Officer	42%	35,677	58%	38,990
231117	Lawyer	54%	52,875	46%	57,104
259306	Instructional Coordinator	55%	39,483	45%	40,051
291605	Registered Nurse	83%	35,721	17%	38,142
311123	Nursing Aide	90%	15,809	10%	12,442
311144	Psychiatric Aide	51%	21,630	49%	22,611
333113	Correctional Officer	19%	28,540	81%	29,828
333114	Correctional Officer	17%	30,108	83%	35,318
373112	Groundskeeper	45%	12,180	55%	15,038
434191	Survey Interviewer	64%	18,958	36%	17,893
436113	Administrative Assistant	94%	22,740	6%	21,715
439502	Mail Clerk	66%	9,036	34%	8,356
439612	Administrative Clerk	79%	17,333	21%	15,497
JUD507	Deputy Juvenile Probation Off	40%	30,057	60%	34,420

COUNTY & RESERVATION UNEMPLOYMENT RATES 2005 ANNUAL AVERAGES

MONTANA	4.0%	Gallatin	2.8%	Missoula	3.7%	Stillwater	3.2%
Beaverhead	3.4%	Garfield	3.9%	Musselshell	5.1%	Sweet Grass	2.0%
Big Horn	8.5%	Glacier	7.3%	Park	3.9%	Teton	3.5%
Blaine	4.4%	Golden Valley	4.2%	Petroleum	4.7%	Toole	3.3%
Broadwater	3.7%	Granite	5.4%	Phillips	4.2%	Treasure	4.1%
Carbon	3.5%	Hill	4.3%	Pondera	4.9%	Valley	4.0%
Carter	3.6%	Jefferson	3.8%	Powder River	3.7%	Wheatland	4.1%
Cascade	4.1%	Judith Basin	4.4%	Powell	6.0%	Wibaux	3.3%
Chouteau	3.6%	Lake	5.3%	Prairie	4.7%	Yellowstone	3.2%
Custer	3.8%	Lewis & Clark	3.7%	Ravalli	4.6%	Blackfeet	15.3%
Daniels	3.5%	Liberty	4.4%	Richland	3.4%	Crow	12.4%
Dawson	3.5%	Lincoln	8.2%	Roosevelt	6.4%	Flathead	6.0%
Deer Lodge	5.8%	McCone	3.4%	Rosebud	5.9%	Fort Belknap	16.4%
Fallon	2.6%	Madison	3.1%	Sanders	6.2%	Fort Peck	12.6%
Fergus	4.8%	Meagher	4.2%	Sheridan	3.6%	N. Cheyenne	15.4%
Flathead	4.4%	Mineral	5.6%	Silver Bow	4.3%	Rocky Boy's	19.7%

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